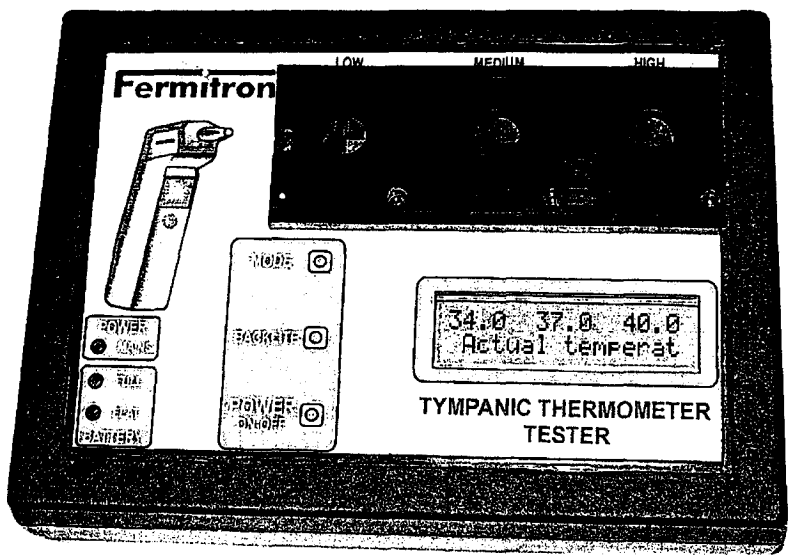
TYMPANIC THERMOMETER TESTER



OPERATORS INSTRUCTIONS

Fermitron

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INTRODUCTION:

The TTT (Tympanic Thermometer Tester) was predominately designed for "field/ on-site testing" of Tympanic Thermometers. It uses a 'blackbody' radiator as an infrared source. Due to the near perfect emissivity ratio of the blackbody radiator, we are able to utilize it as a constant source of infrared radiation by regulating the temperature. The TTT can verify if the device under test, is functioning correctly, in a matter of seconds and being very portable it is also extremely easy to use.

OPERATION OF THE TTT:

CONTROLS AND INDICATORS:

POWER:

This unit is powered by either the internal battery or the regulated DC power supply. There are three indicators on the bottom left-hand corner of the front panel, the indicator on the top illuminates when the unit is connected to the mains supply (green), the centre indicator illuminates when the battery is fully charged (green), while the lower indicator illuminates when the battery is discharged (red). Continued operation of the device while the red indicator is on, will cause the unit to automatically shut off after the warning message is displayed on the LCD screen; "BATTERY LOW SHUTTING DOWN". It is important that, only the supplied power supply is used.

BATTERY CAPACITY..... >5 HRS
CHARGING TIME..... <12 HRS
POWER SUPPLY..... 12 Volt Regulated DC 2.5 amp, 2.5mm socket, positive tip

CONTROLS:

The '**On/Off**' switch is located on the lower left hand side of the unit. In low light conditions activating the '**Backlite**' switch will activate the LCD backlight. Different MODES of operation can be selected via the '**Mode**' switch. Once a mode is selected, a minimum stabilisation time of 15 minutes is required, however 30 minutes is recommended. The unit should not be used if any of the 'temp not ready' indicators are illuminated/flashing on any of the respective channels (red). These are situated on the lower right side of each 'port'.

OPERATING MODES:

MODE 1

ACTUAL TEMPERATURE MODE, this mode provides absolute temperature readings as per display.

MODE 2

GENIUS *3000 Cover on, Oral Mode

MODE 3

GENIUS *3000 Cover on, Core Mode

MODE 4

IVAC *CORE 2090, Cover On

MODE 5

BRAUN * PRO/6014, Cover on

MODE 6

EXERGEN * LTX/LT2 Lightouch, Cover on

MODE 7

DIATEK * Insta-temp/W-A* 9000, Cover on

(Note, that in modes 2 to 7 special algorithms are used)

CALIBRATION:

This unit is calibrated to +/– 0.1 degrees Celsius in the range of 34 - 40 degrees Celsius (or +/– 0.2 °F in the range of 93.2 – 104.0 degrees Fahrenheit), which is traceable to National Australian Standards. It is recommended that the T.T.T. is calibrated at 12 monthly intervals.

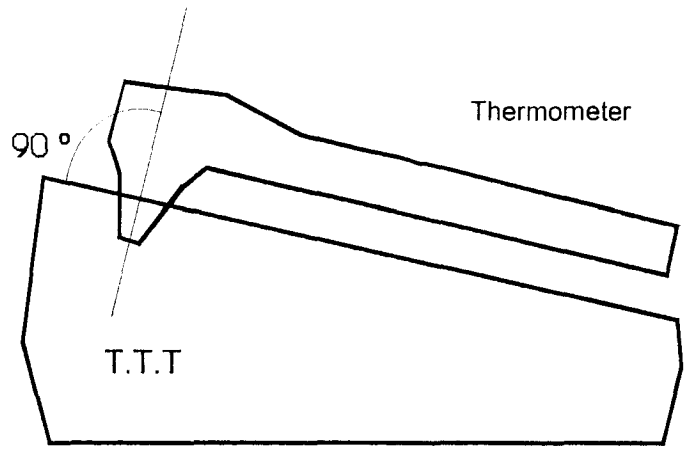

Figure 1 (side view)

TESTING THERMOMETERS:

Select and insert the appropriate 'Slider port' (3 different types supplied). Refer to page 4 'Testing thermometers cont', for more information.

Place the tympanic thermometer in one of the ports as required, ensuring a new probe cover has been fitted;

Left port 34 °C (93.2 °F)
Centre port 37 °C (98.6 °F)
Right port 40 °C (104.0 °F)

The thermometer must be placed so the detector assembly of the thermometer, is at right angles to the front panel of the TTT, refer to figure 1 above. The 'scan' or 'read temperature' button of the thermometer can then be activated. Readings should correspond to displayed values on the TTT. Refer to manufacturers instructions if results differ by more than + /– 0.2 °C (+ /– 0.4 °F). Note, that the uncertainty of the results displayed on the thermometer is equal to the thermometers uncertainty (*as a guide,* most are +/– 0.1°C [+/– 0.2 °F] plus the TTT uncertainty, +/ – 0.1°C [+/– 0.2 °F]). Also note, that for some brands of thermometers, repeated measurements at 40°C (104.0 °F) may temporarily offset the unit, therefore affecting the temperature reading accuracy. If this occurs wait approximately 5 mins before remeasuring.

TESTING THERMOMETERS con't :

SLIDER PORT Guide; These slider ports are used to correctly position the tympanic thermometers.

Genius * 3000	use	Slider port 1
Ivac * CORE 2090	use	Slider port 2
Braun * PRO/ 6014	use	Slider port 1
Exergen * LTX/LT2 Lightouch	use	Slider port 2
Diatek Insta-temp * / W-A * 9000	use	Slider port 3

SOFTWARE:

The TTT is installed with software, which is fully upgradeable, contact supplier for more information if required.

SPECIFICATIONS:

SET TEMPERATURES	34.0, 37.0 & 40.0 °C (+/– 0.1°C) or 93.2, 98.6 & 104.0 °F (+/– 0.2 °F)
BATTERY CAPACITY	> 4.0 HRS
CHARGING TIME	< 12 HRS
POWER SUPPLY	*Input*: 240 V ac, 50 Hz, *Output:* 12 Volt Regulated DC, 2.5 Amp, 2.5mm plug, positive tip
PROTECTION	Current: Over current fuses Thermal: Over temp cut-out
STABILISATION TIME	Minimum 20 mins
AMBIENT TEMPERATURE OPERATING RANGE	16 – 30 °C (61 – 86 °F)
DIMENSIONS	0.6 kg, 210 W x 55 H x 140 D mm, 1.3 lb, 8.3 W x 2.2 H, 5.5 D inches

Accessories

Slider ports	**3**
Power Supply	**1**
Instruction manual	**1**

Optional Carrying case available

DISCLAIMER:

Where indicated by '*', these are registered trading names. Fermitron has not received any endorsement from any manufacturers. Fermitron accepts no liability, if this product is used in-correctly.